

## REMARKS/ARGUMENT

The applicants' attorneys appreciate the Examiner's thorough search and remarks.

Claim 2 has been cancelled without prejudice. Claims 1 and 3-13 are pending consideration. Claims 1-13 have been rejected under 35 U.S.C. §102(b) as anticipated by Williams, U.S. Patent No. 5,248,627.

It was previously argued by the applicants' representative that Williams does not show or suggest a gate electrode comprising of p-type polysilicon. The reasons for this position are outlined in the previously submitted paper. It has been set forth that Williams teaches the use of a gate electrode comprising of p-type polysilicon in his background. Williams teaches using a gate electrode comprising of a "heavily doped" n-type polysilicon 60. See col. 4, lines 42-45. As detailed in the previously submitted paper, the boron implantation steps do not convert this polysilicon layer into a p-type polysilicon. Moreover, Williams in his background does not teach or suggest substituting the n-type polysilicon of the gate electrode with a p-type polysilicon electrode. Indeed, it suggests the opposite as it states: using a p-type polysilicon "is not entirely satisfactory for use in processes specifying a thin gate oxide, as the boron from the p-type polysilicon penetrates easily through the thin gate oxide in any subsequent diffusion steps and can counter dope the channel." Col. 2, lines 60-64. Williams suggests that this problem exists when the gate oxide is thinner than about 1000Å. Given that the device described by Williams is stated to have a gate oxide of 100Å-1200Å, Col. 4, lines 38-40 and given that Williams requires a diffusion drive, col. 4, lines 63-65, Williams does not show or suggest using a p-type polysilicon gate electrode in lieu of an n-type polysilicon. Therefore, Williams does not anticipate claim 1 because it does not show or even suggest using a p-type polysilicon as a material for the gate electrode of the device that he proposes. Reconsideration of claim 1 based on this reason is requested..

Moreover, claim 1 provides for a radiation hardened gate oxide. Whereas, Williams requires a diffusion drive after the creation of the gate oxide layer at a temperature "generally from 1000°C to 1200°C". Col. 4, lines 63-65. It is well known that a high temperature drive such as the one described by Williams degrades the gate oxide's ability to withstand radiation to a level where it would not be considered a radiation hardened gate oxide. Reconsideration of claim 1 based on this additional reason is requested.

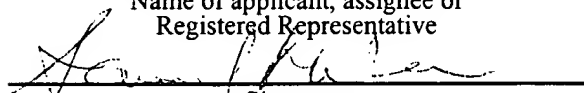
Claims 3-13 depend from claim 1, and, therefore, include its limitations. These claims include other limitations which in combination with those of claim 1 are not shown or suggested by the art of record. Reconsideration is requested.

The application is now believed to be in condition for allowance. Such action is earnestly solicited.

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Asst. Commissioner for Patents, Washington, D.C. 20231, on February 4, 2002:

Samuel H. Weiner

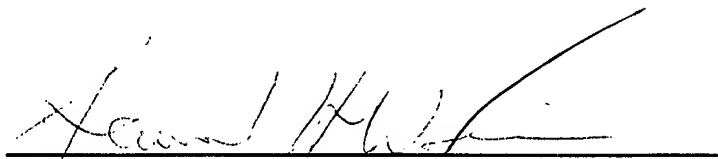
Name of applicant, assignee or  
Registered Representative

  
Signature

February 4, 2002

Date of Signature

Respectfully submitted,



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